

REMARKS

The provisional election by Applicant's Representative Randall Heald on March 10, 2004 to prosecute the invention of Group I, claims 1-17 and 55-73 is affirmed. The claims of the non-elected invention, claims 18-54, are cancelled without prejudice or disclaimer. Applicant reserves the right to later file continuations or divisions having claims directed to the non-elected inventions.

Reconsideration and withdrawal of the rejections of the claims in view of the amendments and remarks presented herein is respectfully requested. Claims 1-17 and 55-73 are pending in this application.

The specification is amended at page 1 to reflect that the present application claims priority to U.S. provisional patent application Serial No. 60/217,493, which was filed on July 11, 2000. As evidence that Serial No. 60/217,493 was filed on July 11, 2000, a copy of the date stamped return postcard that accompanied the application when filed is enclosed herewith. "A postcard receipt which itemizes and properly identifies the items which are being filed serves as *prima facie* evidence of receipt in the U.S.P.T.O. of all the items listed thereon on the date stamped thereon by the U.S.P.T.O." (MPEP § 503).

The 35 U.S.C. §102(b)/(a) Rejection of the Claims

The Examiner rejected claims 1, 3-5, 7, 9-17, 55, 57-60 and 62-73 under 35 U.S.C. § 102(b)/(a) as being anticipated by Berry *et al.*, Polymer Preprints, 41(2), 1739-1740 (2000). This rejection is respectfully traversed.

The present application claims priority to U.S. provisional patent application 60/217,493, which was filed July 11, 2000. At page 5 of the Office Action, the Examiner alleges that the 60/217,493 application fails to provide adequate support for claims 1-17 and 55-73 of the present application. In particular, the Examiner asserts that the 60/217,493 application does not provide support for the phrases "linearly-conjugated π systems" or "sulfonated polyflavenoid."

However, as detailed below, the Berry *et al.* document is not prior art to the present application. The Examiner is respectfully requested to consider a Declaration by Anne Koch, enclosed herewith. In this Declaration, Ms. Koch, a Knowledge Analyst employed by the undersigned attorney for Applicant, describes how she determined when the Berry *et al.*

reference was made available to the public. Based on Ms. Koch's investigation, it is determined that the Berry *et al.* document was not available to the public until July 23, 2000.

Because this date does not precede the priority filing-date of the above-identified patent application (July 11, 2000), the Berry *et al.* document is not available as prior art under 35 U.S.C. § 102. Even assuming, for the sake of argument, that the present application is not entitled to its priority filing date, the Berry *et al.* document was available to the public less than one year prior to the filing-date of the above-identified non-provisional patent application (July 11, 2001). Thus, the Berry *et al.* document is at best available as prior art under 35 U.S.C. § 102(a).

The Examiner is also requested to consider the Declaration enclosed herewith by the inventor of the above-identified patent application, Tito Viswanathan. In the Declaration, Dr. Viswanathan declares that while two others were named as co-authors on the Berry *et al.* document, neither is a co-inventor of the subject matter of the present invention. Since, in the absence of a statutory bar, a disclosure by an inventor of his or her later-filed invention is not prior art, the Berry *et al.* document is not available as prior art under 35 U.S.C. § 102(a). In re Katz, 215 U.S.P.Q. 14 (C.C.P.A. 1982).

Withdrawal of the rejection of claims 1, 3-5, 7, 9-17, 55, 57-60 and 62-73 under 35 U.S.C. § 102(b)/(a) as being anticipated by Berry *et al.* is therefore respectfully requested.

The 35 U.S.C. § 102(e)/ § 103(a) Rejections of the Claims

The Examiner rejected claims 1-5, 7-17, 55-60 and 62-73 under 35 U.S.C. § 102(e) as anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Samuelson *et al.* (U.S. Patent No. 6,569,651). In addition, the Examiner rejected claims 1-17 and 55-73 under 35 U.S.C. § 102(e) as anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Greer *et al.* (U.S. Patent No. 6,440,332).

The standard for anticipation is one of strict identity, and to anticipate a claim for a patent a single prior art source must contain all its elements. Hybritech Inc. v. Monoclonal Antibodies, Inc., 231 U.S.P.Q.2d 90 (Fed. Cir. 1986); In re Dillon, 16 U.S.P.Q.2d 1987 (Fed. Cir. 1990). Furthermore, there must be no difference between the claimed invention and the disclosure, as

viewed by a person of ordinary skill in the art. Scripps Clinic & Res. Found. v. Genentech, Inc., 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the cited reference itself or in the knowledge generally available to an art worker, to modify the reference so as to arrive at the claimed invention. Second, there must be a reasonable expectation of success, *i.e.*, that the invention would be operable. Finally, the prior art reference must teach or suggest all the claim limitations (M.P.E.P. § 2143). The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure (M.P.E.P. citing with favor In re Vaeck, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991)).

The pending claims are directed to an article of manufacture comprising a metal substrate and a coating in contact with the metal substrate, wherein the coating comprises linearly conjugated π -systems, residues of sulfonated lignin or a sulfonated polyflavenoid or derivatives of a sulfonated lignin or a sulfonated polyflavenoid and a film-forming resin (claims 1-17); and to a method of protecting a metallic substrate from corrosion, comprising contacting the substrate with a coating composition comprising linearly conjugated π -systems, residues of sulfonated lignin or a sulfonated polyflavenoid or derivatives of a sulfonated lignin or a sulfonated polyflavenoid and a film-forming resin and curing the coating composition to form a corrosion resistant coating on the substrate (claims 55-73).

I. Samuelson *et al.*

A. The pending claims are not anticipated by Samuelson *et al.*

Samuelson *et al.* disclose methods for the preparation of polymer-template complexes by enzymatic polymerization (abstract). Samuelson *et al.* report that the "template" for their reaction can be either a polymer or a micelle (column 4, lines 46-51). For example, one type of a polymer-template complex discussed by Samuelson *et al.* is a polyaniline-lignin sulfonate complex, which can be used, according to Samuelson *et al.*, as an emulsifier in asphalt, or a dispersant for cement mixes, fertilizers, linoleum paste, dust suppressants, dyes and pigments (column 1, line 57-60). Another type of complex disclosed is a polymer-micelle complex, for example, a polyaniline-micelle complex, which Samuelson *et al.* disclose can be used for paints, coatings, and for entrapping and transporting materials (column 1, lines 60-65). However,

Samuelson *et al.* do not disclose an article of manufacture comprising a metal substrate and a coating in contact with the metal substrate, nor a method of protecting a metallic substrate from corrosion. Thus, the claims are not anticipated by Samuelson *et al.*

At page 10 of the Office Action, the Examiner states that a “generalized chemical formula of a portion of lignin sulfonate” is disclosed in Figure 3 of the Samuelson *et al.* document, and asserts that the present claims are inherently disclosed by the document. The Examiner is respectfully requested to consider that when “relying upon the theory of inherency, the examiner must provide basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” MPEP §2112, citing Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). While Samuelson *et al.* relate that a polyaniline-micelle complex can be used generically as “paint” or a “coating,” they do not disclose or suggest coating a metal with the complex, let alone using the complex to prevent the corrosion of a metallic surface. Moreover, Samuelson *et al.* do not disclose that a polymer-template complex can be used as a coating at all. The Examiner is urged to consider that the polyaniline-micelle complex of Samuelson *et al.* is not identical to Applicant’s claimed coating composition. Thus, the presently claimed composition does not “necessarily flow” from Samuelson *et al.*, and the pending claims are therefore not inherently disclosed by Samuelson *et al.*

B. The pending claims are not obvious over Samuelson *et al.*

As discussed above, there is no disclosure or suggestion in the Samuelson *et al.* document regarding metals or metal substrates. Therefore, there is nothing in Samuelson *et al.* document that would provide an art worker with the motivation to modify the reference so as to arrive at the presently claimed coating composition. Moreover, there is nothing in the Samuelson *et al.* document that would provide the art worker with a reasonable expectation of success that their polymer-template complex would even adhere to a metallic surface, let alone provide it with a protective coating against corrosion. It is clear that Samuelson *et al.* does not disclose or suggest all the limitations of the pending claims. Furthermore, because Samuelson *et al.* disclose that only polymer-micelle complexes can be used as paints and coatings, Samuelson *et al.* actually teach away from the claimed invention.

Thus, it is respectfully submitted that the pending claims are not *prima facie* obvious over Samuelson *et al.*, and withdrawal of the 35 U.S.C. § 103(a) rejection over Samuelson *et al.* is appropriate.

Therefore, withdrawal of the 35 U.S.C. § 102(e) as anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Samuelson *et al.* is respectfully requested.

II. Greer *et al.*

Greer *et al.* was filed on October 24, 2000 as U.S. patent application Serial No. 09/695,262. The 09/695,262 application is a continuation-in-part application of U.S. patent application Serial No. 09/361,505, which was filed on July 23, 1999 and is now U.S. Patent No. 6,231,789 (Hawkins *et al.*; as a convenience to the Examiner, a copy of Hawkins *et al.* is enclosed). Comparison of Greer *et al.* to Hawkins *et al.* reveals that Greer *et al.* contains subject matter that is not entitled to the priority filing date of July 23, 1999. In particular, there is no disclosure or suggestion in Hawkins *et al.* of lignin, let alone sulfonated lignin or lignosulfonic acid doped PANI. Thus, the pending claims are novel and unobvious over Greer *et al.*

Withdrawal of the U.S.C. § 102(e)/ § 103(a) of the pending claims over Greer *et al.* is therefore respectfully requested.

Serial Number: 09/903,260

Dkt: KSC-12139

Filing Date: 07/11/2001

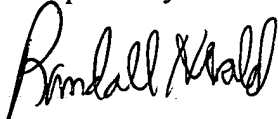
Title: CORROSION PREVENTION OF COLD ROLLED STEEL USING WATER DISPERSIBLE LIGNOSULFONIC ACID DOPED POLYANILINE

Conclusion

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 321-867-7214 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 14-0116.

Respectfully submitted,



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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 21 day of June, 2004.

June 21, 2004

Date:



Carol Anne Dunn, Paralegal Specialist